$T_{cc\overline{cc}}(6900)^0$

$I^G(J^{PC}) = 0^+(?^{?+})$

OMITTED FROM SUMMARY TABLE
was $X(6900)$

> State incompatible with a $q\overline{q}$ structure. See the review on "Heavy Non-$q\overline{q}$ Mesons."

$T_{cc\overline{cc}}(6900)^0$ MASS

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
6899±12 OUR AVERAGE	Error includes scale factor of 1.1.			
6910±10±10	[1] AAD	23BL	ATLS	$pp \to J/\psi J/\psi X$
6886±11±11	[2] AAIJ	20AY	LHCB	$pp \to J/\psi J/\psi X$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
6960±50±30	[3] AAD	23BL	ATLS	$pp \to J/\psi \psi(2S) X$

[1] In a model with two resonances, one describing the broad structure above threshold (mass $6650 \pm 20^{+30}_{-20}$ MeV, width $440 \pm 50^{+60}_{-50}$ MeV) interfering with single parton scattering, and a non-interfering $T_{cc\overline{cc}}(6900)$.

[2] In a model where the broad structure above threshold interferes with non-resonant single parton scattering. Without interference the mass is $6905 \pm 11 \pm 7$ MeV.

[3] Assuming a single resonance (could be another state). A 3σ signal is observed for an additional resonance with mass $7220 \pm 30^{+10}_{-40}$ MeV and width $90 \pm 60^{+60}_{-50}$ MeV.

$T_{cc\overline{cc}}(6900)^0$ WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
153± 29 OUR AVERAGE				
150± 30± 10	[1] AAD	23BL	ATLS	$pp \to J/\psi J/\psi X$
168± 33± 69	[2] AAIJ	20AY	LHCB	$pp \to J/\psi J/\psi X$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
510±170$^{+110}_{-100}$	[3] AAD	23BL	ATLS	$pp \to J/\psi \psi(2S) X$

[1] In a model with two resonances, one describing the broad structure above threshold (mass $6650 \pm 20^{+30}_{-20}$ MeV, width $440 \pm 50^{+60}_{-50}$ MeV) interfering with single parton scattering, and a non-interfering $T_{cc\overline{cc}}(6900)$.

[2] In a model where the broad structure above threshold interferes with non-resonant single parton scattering. Without interference the width is 80 ± 38 MeV.

[3] Assuming a single resonance (could be another state). A 3σ signal is observed for an additional resonance with mass $7220 \pm 30^{+10}_{-40}$ MeV and width $90 \pm 60^{+60}_{-50}$ MeV.

$T_{cc\overline{cc}}(6900)^0$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$J/\psi\, J/\psi$	seen

$\Gamma(J/\psi\, J/\psi)/\Gamma_{\text{total}}$ $\qquad\qquad$ Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	AAD	23BL	ATLS	$pp \to J/\psi\, J/\psi\, X$
seen	AAIJ	20AY	LHCB	$pp \to J/\psi\, J/\psi\, X$

$T_{cc\overline{cc}}(6900)^0$ REFERENCES

AAD	23BL	PRL 131 151902	G. Aad *et al.*	(ATLAS)
AAIJ	20AY	SCIB 65 1983	R. Aaij *et al.*	(LHCb Collab.)